

WHAT IS CLAIMED IS:

One a T

1. A method for treating Hepatitis B virus (HBV) infection, comprising administering a compound that modulates the synthesis or expression of a target cellular gene or the activity of a target protein to a subject in need of such treatment.
2. The method of Claim 1 in which the target gene is a Pyk2 kinase.
3. The method of Claim 2 in which the compound is an antisense or ribozyme molecule that blocks translation of the Pyk2 kinase.
4. The method of Claim 2 in which the compound is complementary to the 5' region of the target gene and blocks transcription via triple helix formation.
5. The method of Claim 1 in which the target protein is a Pyk2 kinase.
6. The method of Claim 5 in which the compound inhibits the kinase activity of the Pyk2 kinase.
7. The method of Claim 6 in which the compound is a tyrphostin-derived inhibitor or a pharmaceutically acceptable salt thereof.
8. The method of Claim 6 in which the compound is a pyrazolopyrimidine, a derivative thereof or a pharmaceutically acceptable salt thereof.

9. The method of Claim 6 in which the compound is a derivative of benzylidenemalonitrile or a pharmaceutically acceptable salt thereof.

5 10. The method of Claim 5 in which the compound interferes with the interaction of Pyk2 kinase with other cellular or viral proteins.

11. The method of Claim 10 in which the compound is a dominant-negative mutant of Pyk2 kinase.

10

12. The method of Claim 10 in which the compound is a phosphotyrosine containing peptide or a derivative thereof.

13. The method of Claim 1 in which the target protein
15 is HBx.

14. A method for treating Hepatitis B virus infection, comprising administering a compound that modulates HBx activities required for viral replication.

20

15. The method of Claim 17 in which the compound modulates the activation of a cytosolic calcium release.

16. The method of Claim 15 wherein the compound is
25 Cyclosporin A.

17. The method of Claim 15 in which the compound inhibits or interferes with the activity of a mitochondrial calcium channel.

30

18. The method of Claim 15 in which the compound inhibits or interferes with the activity of Endoplasmic Reticulum calcium channel.

19. A pharmaceutical formulation for the treatment of HBV infection, comprising a compound that inhibits activation of a Pyk2 kinase, mixed with a pharmaceutically acceptable carrier.

5

20. A pharmaceutical formulation for the treatment of HBx infection, comprising a compound that inhibits HBx mediated activation of a Pyk2 kinase signaling cascade, mixed with a pharmaceutically acceptable carrier.

10

21. A pharmaceutical formulation for the treatment of HBV infection that inhibits the activities of the HBx gene product essential to sustain the HBV life cycle, mixed with a pharmaceutically acceptable carrier.

15

20

25

30